

REMARKS

Reconsideration of this application in view of the following remarks is respectfully requested. Claims 21-22 are currently pending. Claims 21-22 stand rejected under 35 U.S.C. §103(a) as being obvious in view of U.S. Patent No. 6,479,560 to Freitag et al. and U.S. Patent No. 4,836,552 to Puckett et al. Applicant respectfully disagrees and traverses this ground of rejection.

As way of background, the present invention is directed to a golf ball of unitary molded construction wherein the entire golf ball is foamed from a composition that comprises an ethylene-vinyl acetate copolymer, a thermoplastic elastomer, and a blowing agent, and wherein the golf ball has a coefficient of restitution value that ranges from about 0.33 to about 0.42. As is appreciated by those skilled in the art, the "coefficient of restitution" (also sometimes referred to as "rebound") is a measure of the ratio of the relative velocity of an elastic sphere immediately before and after a direct impact (see specification at page 14-20). Put simply, the difference in the velocities of the two colliding objects after the collision, divided by the difference in their velocities before the collision. The coefficient of restitution is always expressed as a number ranging from 0 (meaning *all* energy is lost in the collision) and 1 (meaning a perfect, elastic collision in which all energy is transferred from one object to the other). With regards to the present invention, a coefficient of restitution value that ranges from about 0.33 to about 0.42 is critical because it defines a set range of measurable physical attributes of the inventive foamed golf ball (*i.e.*, rebound characteristics or measure of rebound height of foamed golf balls from hard surface in drop test) that is much lower than that suggested from the teachings of the prior art (namely, a rebound of greater than about 50%).


With regards to the prior art, the Examiner argues as follows:

It is given that the combination of Freitag et al. and Puckett et al. has a coefficient of restitution but does not explicitly disclose the value. Applicant does not state why the value of coefficient of restitution is critical in order to attain the invention. Further, Freitag et al. discloses the composition claimed by the applicant. One having ordinary skill in the art would have found it obvious to find the optimum range through routine experimentation. The combination of Freitag et al. and Puckett et al. teaches reduced flight distance and therefore, would perform equally as well because of such.

Contrary to the Examiner's position, the combination of Freitag et al. and Puckett et al. teaches away from the present invention because this combination teaches a foamed golf ball having, among other physical attributes, a coefficient or restitution value of "approximately 0.5 to 0.8, and preferably 0.67." Indeed, Puckett et al. teaches that "[i]n order for a golfer to realize the ordinary training and practice benefits as well as the enjoyment associated with playing a conventional ball on a conventional course, the short distance golf ball *must* perform in a manner substantially similar to a conventional ball except that the distance it flies *must* be approximately 50% shorter." (U.S. Pat. No. 4,836,522 Col 1, lines 29-35, *emphasis added*.) In support of this supposition, Puckett et al. further teaches that "[t]he short distance goals ball of the present invention has a rebound [coefficient of restitution] of from 50% to 80% and preferably 67%." (Col. 3, lines 37-39; *see also* claim 1.). Therefore, it necessarily follows that one skilled in the art, in making a foamed golf ball like those taught in Puckett et al. from the composition taught by Freitag et al., would seek an optimum coefficient of restitution range of approximately 0.5 to 0.8, and preferably 0.67. The skilled artisan would have no motivation whatsoever to make a foamed golf ball having any lower coefficient of restitution value because such a ball would have less than desirable rebound characteristics. Accordingly, the combination of Freitag et al. and Puckett et al. teaches away from the present invention because its range of coefficient or restitution values are much greater than the about 0.33 to about 0.42 coefficient or restitution values recited in the present invention.

In view of the above amendments and remarks allowance of claims 21 and 22 is earnestly solicited. A good faith effort has been made to place this application in condition for allowance. If any further matter requires attention prior to allowance, the Examiner is respectfully requested to contact the undersigned attorney at (206) 568-3100 to resolve the same.

Respectfully submitted,


Thomas E. Loop
Registration No. 42,810
(206) 568-3100 phone